

AMENDMENTS TO THE CLAIMS:

Please amend claims 41, 51, 61, 71, 99, 101, 111, 121, 131, 141 and 142, as shown below. This listing of claims will replace all prior versions and listings of claims in the Application:

Claims 1-40 (cancelled)

Claim 41 (currently amended): A bill payment system comprising:

a biller generating at least one invoice for at least one customer, said invoice comprising a unique bar code, said bar code comprising data identifying at least said customer and said biller, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment system; and

a scanning apparatus configured to permit a cashier to scan said bar code, said scanning apparatus being capable, based on the identifying data of said bar code and a payment made to said cashier by said customer in person, of transmitting or initiating transfer of funds to said biller in a predetermined amount and concomitantly transmitting or initiating transfer of data to said biller regarding said payment.

Claim 42 (previously presented): A system according to claim 41, wherein said funds are transmitted or transferred as an electronic funds transfer.

Claim 43 (previously presented): A system according to claim 41, wherein said funds are transmitted or transferred via the Automated Clearing House.

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 44 (previously presented): A system according to claim 41, wherein said bar code comprises a plurality of validation levels.

Claim 45 (previously presented): A system according to claim 41, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 46 (previously presented): A system according to claim 41, wherein said apparatus is integrated into a point-of-sale system.

Claim 47 (previously presented): A system according to claim 41, wherein said apparatus is in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 48 (previously presented): A system according to claim 41, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 49 (previously presented): A system according to claim 41, wherein said data identifying said biller is assigned by a central registry authority.

Claim 50 (previously presented): A system according to claim 41, wherein said apparatus is configured to print a receipt evidencing said payment.

Claim 51 (currently amended): A bill payment method comprising:
generating an invoice for at least one customer, said invoice comprising a unique bar code, said bar code comprising data identifying at least said customer and said biller, wherein

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said bar code alone, without additional information, embodies an algorithmic signature

identifying said bar code as being proprietary to said bill payment method; and

permitting a third party to scan said bar code and, based on the identifying data of said bar code and a payment made by said customer in person to said third party, to transmit or initiate transmission of funds to said biller in a predetermined amount and concomitantly transmit or initiate transmission of data to said biller regarding said payment.

Claim 52 (previously presented): A method according to claim 51, wherein said funds are transmitted or transferred as an electronic funds transfer.

Claim 53 (previously presented): A method according to claim 51, wherein said funds are transmitted or transferred via the Automated Clearing House.

Claim 54 (previously presented): A method according to claim 51, wherein said bar code comprises a plurality of validation levels.

Claim 55 (previously presented): A method according to claim 51, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 56 (previously presented): A method according to claim 51, wherein said scanning is performed at a point-of-sale system.

Claim 57 (previously presented): A method according to claim 51, wherein said scanning is performed in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 58 (previously presented): A method according to claim 51, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 59 (previously presented): A method according to claim 51, wherein said data identifying said biller is assigned by a central registry authority.

Claim 60 (previously presented): A method according to claim 51, further comprising printing a receipt evidencing said payment.

Claim 61 (currently amended): A bill payment network comprising:
a plurality of billers, each said biller generating an invoice for at least one customer, said invoice comprising a unique bar code, said bar code comprising data identifying at least said customer and said biller, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment network; and

a plurality of third parties in communication with said billers, each said third party capable of scanning said bar code and, based on the identifying data of said bar code and a payment made by said customer in person to said third party, of transmitting or initiating transfer of funds to said biller in a predetermined amount and concomitantly transmitting or initiating transfer of data to said biller regarding said payment.

Claim 62 (previously presented): A network according to claim 61, wherein said funds are transferred or transmitted as an electronic funds transfer.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 63 (previously presented): A network according to claim 61, wherein said funds are transferred or transmitted via the Automated Clearing House.

Claim 64 (previously presented): A network according to claim 61, wherein said bar code comprises a plurality of validation levels.

Claim 65 (previously presented): A network according to claim 61, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 66 (previously presented): A network according to claim 61, wherein said third party is capable of performing said scanning using a point-of-sale system.

Claim 67 (previously presented): A network according to claim 61, wherein said third party is in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 68 (previously presented): A network according to claim 61, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 69 (previously presented) A network according to claim 61, wherein said data identifying said biller is assigned by a central registry authority.

Claim 70 (previously presented): A network according to claim 61, wherein said third party is configured to print a receipt evidencing said payment.

Claim 71 (currently amended): A bill payment method comprising:

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

receiving an invoice comprising a unique bar code, said bar code comprising data identifying at least a customer and a biller, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment method;

scanning said bar code;

receiving a payment from said customer in person; and

based on the identifying data of said bar code and said payment, transmitting or initiating transfer of funds to said biller in a predetermined amount and concomitantly transmitting or initiating transfer of data to said biller regarding said payment.

Claim 72 (previously presented): A method according to claim 71, wherein said funds are transferred or transmitted as an electronic funds transfer.

Claim 73 (previously presented): A method according to claim 71, wherein said funds are transferred or transmitted via the Automated Clearing House.

Claim 74 (previously presented): A method according to claim 71, wherein said bar code comprises a plurality of validation levels.

Claim 75 (previously presented): A method according to claim 71, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 76 (previously presented): A method according to claim 71, wherein said scanning is performed at a point-of-sale system.

Claim 77 (previously presented): A method according to claim 71, wherein said scanning is performed in a location selected from the group consisting of: grocery store,

convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 78 (previously presented): A method according to claim 71, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 79 (previously presented): A method according to claim 71, wherein said data identifying said biller is assigned by a central registry authority.

Claim 80 (previously presented): A method according to claim 71, further comprising printing a receipt evidencing said payment.

Claim 81 (previously presented): A payment network comprising:
a payment system adapted to transmit or initiate transfer of funds to a payee in a predetermined amount based on a payment from a payor in the form of a physical payment instrument and concomitantly transmit or initiate transfer of data to said payee regarding said payment, said data including the date and time said payment system received said payment from said payor; and

a payee accounts receivable system adapted to receive said data and to credit an account corresponding to said payor in the amount of said payment as of said date and time said payment system received said payment from said payor.

Claim 82 (previously presented): A bill payment network comprising:

a bill payment system adapted to transmit or initiate transfer of funds to a biller in a predetermined amount based on a payment from a payor made in person via a cashier and

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

concomitantly transmit or initiate transfer of data to said biller regarding said payment, said data including the date and time said system received said payment; and

a biller accounts receivable system adapted to receive said data and to credit an account corresponding to said payor in the amount of said payment as of said date and time said bill payment system receives said payment from said payor.

Claim 83 (previously presented): A method of performing a financial transaction in a network comprising, in sequence, the steps of:

receiving a payment from a payor in the form of a physical payment instrument;

transmitting or initiating transfer of funds to a payee in a predetermined amount based on said payment and concomitantly transmitting or initiating transfer of data to said payee regarding said payment, said data including the date and time said payment system received said payment from said payor; and

providing said data to a payee accounts receivable system.

Claim 84 (previously presented): A method of bill payment comprising, in sequence, the steps of:

receiving a payment from a payor made in person via a cashier;

transmitting or initiating transfer of funds to a biller in a predetermined amount based on said payment and concomitantly transmitting or initiating transfer of data to said biller regarding said payment, said data including the date and time said system received said payment from said payor;

and providing said data to a biller accounts receivable system.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 85 (previously presented): A payment network as claimed in claim 81, wherein said payment system is adapted to transmit or initiate transfer of said data and said funds to said payee in said predetermined amount on the same calendar or business day or next calendar or business day following the date said payment system receives said payment from said payor, or within 24 hours or less of the date and time said payment system receives said payment from said payor.

Claim 86 (previously presented): A bill payment network as claimed in claim 82, wherein said bill payment system is adapted to transmit or initiate transfer of said data and said funds to said biller in said predetermined amount on the same calendar or business day or next calendar or business day following the date said bill payment system receives said payment from said payor, or within 24 hours or less of the date and time said bill payment system receives said payment from said payor.

Claim 87 (previously presented): A payment network as claimed in claim 83, wherein said payment system is adapted to transmit or initiate transfer of said data and said funds to said payee in said predetermined amount on the same calendar or business day or next calendar or business day following the date said payment system receives said payment from said payor, or within 24 hours or less of the date and time said payment system receives said payment from said payor.

Claim 88 (previously presented): A bill payment network as claimed in claim 84, wherein said bill payment system is adapted to transmit or initiate transfer of said data and said funds to said biller in said predetermined amount on the same calendar or business day or next calendar or business day following the date said bill payment system receives said payment

from said payor, or within 24 hours or less of the date and time said bill payment system receives said payment from said payor.

Claim 89 (previously presented): A payment network as claimed in claim 81, wherein said payment system is adapted to identify the payee said payor is paying by scanning a bar code comprising information corresponding to said payee.

Claim 90 (previously presented): A bill payment network as claimed in claim 82, wherein said bill payment system is adapted to identify the biller said payor is paying by scanning a bar code comprising information corresponding to said biller.

Claim 91 (previously presented): A payment network as claimed in claim 83, wherein said payment system is adapted to identify the payee said payor is paying by scanning a bar code comprising information corresponding to said payee.

Claim 92 (previously presented): A bill payment network as claimed in claim 84, wherein said bill payment system is adapted to identify the biller said payor is paying by scanning a bar code comprising information corresponding to said biller.

Claim 93 (cancelled)

Claim 94 (previously presented): A method as claimed in claim 55, wherein said biller applies said payment made by said customer against said invoice as of said date and time said customer makes said payment.

Claim 95 (cancelled)

Claim 96 (previously presented): A method as claimed in claim 75, wherein said biller applies said payment made by said customer against said invoice as of said date and time said customer makes said payment.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 97-98 (cancelled)

Claim 99 (currently amended): A method of providing for payment of bills by payors to billers, comprising:

making available to one or more billers a standard format for representing on a printed document data including biller identification and a biller account identifier corresponding to said customer;

permitting one of said billers to generate a document having data in said standard format printed thereon;

providing at one or more locations of one or more third parties one or more scanning apparatus adapted to read data in said standard format;

permitting said third party to scan said document using said scanning apparatus;

receiving by electronic transmission from ~~one of~~ said scanning apparatus ~~data~~ information comprising third party identification, said biller identification, said biller account identifier, and payment amount; and

providing said received information to a payment network to effect transmission of funds from an account of said third party to an account of one of said billers identified by said biller identification in an amount identified by said payment amount and concomitantly effecting transmission of payment information to said biller;

wherein the only personal information of the customer used in said transfer or transmission of funds is said biller account identifier.

Claim 100 (previously presented): A method as claimed in claim 99, wherein said payment information comprises the date and time said payment is made.

Claim 101 (currently amended): A bill payment system comprising:

a biller generating at least one invoice for at least one customer, said invoice comprising a unique bar code, said bar code comprising at least biller identification data and a biller account identifier corresponding to said customer, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment system; and

a scanning apparatus configured to scan said bar code, said scanning apparatus being capable, based on the identifying data of said bar code and a payment made by said customer, of transmitting or initiating transfer of funds to said biller in a predetermined amount and concomitantly transmitting or initiating transfer of data to said biller regarding said payment;

wherein the only personal information of the customer used in said transfer or transmission of funds is said biller account identifier.

Claim 102 (previously presented): A system according to claim 101, wherein said funds are transmitted or transferred as an electronic funds transfer.

Claim 103 (previously presented): A system according to claim 101, wherein said funds are transmitted or transferred via the Automated Clearing House.

Claim 104 (previously presented): A system according to claim 101, wherein said bar code comprises a plurality of validation levels.

Claim 105 (previously presented): A system according to claim 101, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 106 (previously presented): A system according to claim 101, wherein said apparatus is integrated into a point-of-sale system.

Claim 107 (previously presented): A system according to claim 101, wherein said apparatus is in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 108 (previously presented): A system according to claim 101, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 109 (previously presented): A system according to claim 101, wherein said data identifying said biller is assigned by a central registry authority.

Claim 110 (previously presented): A system according to claim 101, wherein said apparatus is configured to print a receipt evidencing said payment.

Claim 111 (currently amended): A bill payment method comprising:
generating an invoice for at least one customer, said invoice comprising a unique bar code, said bar code comprising at least biller identification data and a biller account identifier corresponding to said customer, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment method; and

permitting a third party to scan said bar code and, based on the identifying data of said bar code and a payment made by said customer, to transmit or initiate transmission of funds to

said biller in a predetermined amount and concomitantly transmit or initiate transmission of data to said biller regarding said payment;

wherein the only personal information of the customer used in said transfer or transmission of funds is said biller account identifier.

Claim 112 (previously presented): A method according to claim 111, wherein said funds are transmitted or transferred as an electronic funds transfer.

Claim 113 (previously presented): A method according to claim 111, wherein said funds are transmitted or transferred via the Automated Clearing House.

Claim 114 (previously presented): A method according to claim 111, wherein said bar code comprises a plurality of validation levels.

Claim 115 (previously presented): A method according to claim 111, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 116 (previously presented): A method according to claim 111, wherein said scanning is performed at a point-of-sale system.

Claim 117 (previously presented): A method according to claim 111, wherein said scanning is performed in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 118 (previously presented): A method according to claim 111, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 119 (previously presented): A method according to claim 111, wherein said data identifying said biller is assigned by a central registry authority.

Claim 120 (previously presented): A method according to claim 111, further comprising printing a receipt evidencing said payment.

Claim 121 (currently amended): A bill payment network comprising:

a plurality of billers, each said biller generating an invoice for at least one customer, said invoice comprising a unique bar code, said bar code comprising at least biller identification data and a biller account identifier corresponding to said customer, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment network; and

a plurality of third parties in communication with said billers, each said third party capable of scanning said bar code and, based on the identifying data of said bar code and a payment made by said customer, of transmitting or initiating transfer of funds to said biller in a predetermined amount and concomitantly transmitting or initiating transfer of data to said biller regarding said payment;

wherein the only personal information of the customer used in said transfer or transmission of funds is said biller account identifier.

Claim 122 (previously presented): A network according to claim 121, wherein said funds are transferred or transmitted as an electronic funds transfer.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 123 (previously presented): A network according to claim 121, wherein said funds are transferred or transmitted via the Automated Clearing House.

Claim 124 (previously presented): A network according to claim 121, wherein said bar code comprises a plurality of validation levels.

Claim 125 (previously presented): A network according to claim 121, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 126 (previously presented): A network according to claim 121, wherein said third party is capable of performing said scanning using a point-of-sale system.

Claim 127 (previously presented): A network according to claim 121, wherein said third party is in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 128 (previously presented): A network according to claim 121, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 129 (previously presented): A network according to claim 121, wherein said data identifying said biller is assigned by a central registry authority.

Claim 130 (previously presented): A network according to claim 121, wherein said third party is configured to print a receipt evidencing said payment.

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 131 (currently amended): A bill payment method comprising:

receiving an invoice from a biller, said invoice comprising a unique bar code, said bar code comprising at least biller identification data and a biller account identifier corresponding to said customer, wherein said bar code alone, without additional information, embodies an algorithmic signature identifying said bar code as being proprietary to said bill payment method; and

permitting a third party in communication with said biller to scan said bar code and, based on the identifying data of said bar code and a payment made by said customer, to transmit or initiate transfer of funds to said biller in a predetermined amount and concomitantly transmit or initiate transfer of data to said biller regarding said payment;

wherein the only personal information of the customer used in said transfer or transmission of funds is said biller account identifier.

Claim 132 (previously presented): A method according to claim 131, wherein said funds are transferred or transmitted as an electronic funds transfer.

Claim 133 (previously presented): A method according to claim 131, wherein said funds are transferred or transmitted via the Automated Clearing House.

Claim 134 (previously presented): A method according to claim 131, wherein said bar code comprises a plurality of validation levels.

Claim 135 (previously presented): A method according to claim 131, wherein said data comprises the date and time said customer makes said payment or the place said payment is made.

Claim 136 (previously presented): A method according to claim 131, wherein said scanning is performed at a point-of-sale system.

Claim 137 (previously presented): A method according to claim 131, wherein said scanning is performed in a location selected from the group consisting of: grocery store, convenience store, supermarket, chain store, post office, drug store, government office, location where goods are sold, location where services are sold, and retail store.

Claim 138 (previously presented): A method according to claim 131, wherein said bar code is in a location selected from the group consisting of: on the front of said invoice, on the reverse of said invoice, detachably printed on said invoice, and on a separate piece of paper from said invoice.

Claim 139 (previously presented): A method according to claim 131, wherein said data identifying said biller is assigned by a central registry authority.

Claim 140 (previously presented): A method according to claim 131, further comprising printing a receipt evidencing said payment.

Claim 141 (currently amended): A method of including additional data in an Automated Clearing House funds transfer ~~performing a financial transaction in a network~~, said method comprising the steps of:

in an Automated Clearing House electronic funds transfer, inserting one or more data elements into one or more of a customer name field and a user designated discretionary field corresponding to the formal data format specification for a remitted payment record; ~~in the Automated Clearing House,~~

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

remitting said payment record, including said inserted data elements, to the Automated Clearing House for processing; and
extracting, from said processed payment record, at least one of said inserted data elements;

wherein said data elements comprise one or more of: a local retail transaction number providing traceback information either as a reference link back to a store transaction log or as a reference link back to an electronic transaction database; and the place and/or date and/or time a payment is made.

Claim 142 (currently amended): A method of including additional data in an electronic funds transfer performing a financial transaction in a network, said method comprising the steps of:

in an electronic funds transfer, inserting one or more data elements into a customer name field corresponding to the formal data format specification for a remitted payment record in a payment network; [[,]]

remitting said payment record, including said inserted data elements, to said payment network for processing; and

extracting, from said processed payment record, at least one of said inserted data elements;

wherein said data elements comprise one or more of: a local retail transaction number providing traceback information either as a reference link back to a store transaction log or as a

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

reference link back to an electronic transaction database; and the place and/or date and/or time
a payment is made.

D1

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

INTRODUCTORY COMMENTS

In the mid-1950's, from a classic three-room schoolhouse, Applicant was a fourth-grade student who produced a number of rocket ship designs to go to the moon. Less than thirteen years later, on July 20th, 1969, Apollo 11 landed on the moon. The Apollo 11 landing was not so much as a consequence of Applicant's childhood designs, but was due instead to the accumulated knowledge, experimentation and the work of many people, ranging from ancient Chinese alchemists to modern day aerospace engineers.

The Examiner has cited Applewhite, U.S. Application Publication No. 2003/0023553 ("Applewhite") in rejecting most of the claims of the pending application. In the same vein as Applicant's simplistic childhood rocket ship designs, Applewhite's application presents a design for a bill payment system "invention" that can not be implemented as described in his specification. The Applewhite design does not conform to industry-defined technical specifications, nor does it comply with commonly employed standard financial operating procedures to demonstrate a working proof-of-concept model of his "invention", as he has outlined it.

To aid the Examiner in understanding these obvious oversights of the Applewhite reference, Applicant provides the following explanations.

Applewhite Does Not Conform to Industry-Defined Technical Specifications

As an introductory example to this subject matter, one can readily observe the application number bar code at the top of each U.S. Patent Office application, e.g., Applewhite. The 16-character bar code serial number uses Code 39 format and requires approximately

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

3.625 linear inches of print space – slightly more than the maximum size of the lowest common denominator industry bar code scanning standard aperture of approximately 3 inches. The ‘X’ dimension, or the width of the smallest bar code element, measures 0.013 inches. This bar code ‘X’ dimension conforms to the voluntary standard for the printed, machine-readable representation of the Universal Product Code (Quality Specification for the U.P.C. Printed Symbol – January 1993, attached hereto as Exhibit A). Printing this same patent application serial number, using the compressed Code 128 bar code symbology at the same 0.013 inch ‘X’ dimension, requires 2.5 inches of print space. The Applewhite “invention” calls for a bar code design consisting of many more digits than 16. Applicant teaches a bill payment bar code format that falls within industry standard specifications and lowest common denominator industry-standard bar code scanning equipment, while Applewhite ignores this very important and central technical design premise entirely, preferring instead, to cite the repertoire “skilled in the art” caveat, e.g., as in paragraph 0029, to avoid altogether having to describe the critical details of implementation.

In paragraph 0015 and throughout the rest of his specification and claims, Applewhite describes the many possible information elements that could be included within the bill / invoice computer readable indicia, such as a bar-coded bill, scanned at the grocery store checkout aisle as: “The bar code system 125 separates the information contained in the bar code on the bar-coded bill into data items such as invoiced-party information, invoicing party information, account information, routing number, invoice number, amount due etc.” Later, in paragraph 0019, Applewhite describes how this merchant-collected information at the checkout aisle is then used to notify the merchant financial institution on behalf of the invoicing parties:

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

“The financial institution can be informed directly by the merchant – such as by the bar code system 125, or alternatively ...” In order for the “bar code system 125” to be able to remit this information in the standard financial institutional (Federal Reserve ACH) format, the following bar-coded data fields, totaling **66 digits**, are required, at a minimum, to implement this aspect of the Applewhite design –

- 5 Digits for UPC Designator – In the realm of grocery store products, each item is differentiated by a 12-digit Universal Product Code, with the first 5 digits designating a manufacturer identification number and the second 5 digits specifying a product identification number. At a minimum, a leading 5-digit designator would be required to disambiguate this bar code as a bill payment type from all other grocery store bar coded products.
- 6 Digits for Invoicing Party Information – A reasonable field size to enumerate a population of billers in order to print out the invoicing party information, stored in a database, as described in paragraph 0016.
- 26 Digits for the Invoicing Party Financial Institution account information and routing number – The Federal Reserve ACH standard format account numbers consist of routing information (9 digits) with an account number (17 digits).
- 22 Digits for Invoiced Party information – The Federal Reserve ACH standard format for Individual Identification Number (or Customer Account Number). In particular, SPRINT routinely uses a 22-digit customer account numbering scheme.
- 7 Digits for Amount Due – The Federal Reserve ACH standard format reserves 10 digits for this purpose, although in a bill payment environment, 7 digits is a more reasonable field length.

These five data fields alone would require that a minimum total bar code length of 66 digits fit into a bar code scan 3-inch aperture. There are only two available industry standard bar codes that are scanned at grocery stores – the two UPC A/E variants (12 digits maximum) and Code 128. If the compressed Code 128 bar code were used, the ‘X’ dimension for this 66-digit string

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

would need to be 0.00754 inches in order for the entire code to fit within a 3 inch wide scanning aperture, as indicated in the Table on the following page:

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Table of 'X' Dimensions for Various Length Bar Code Data Strings Using CODE-128 Compression Mode

The following table presents the 'X' dimension, or the width of the smallest bar code element, for various length bar coded data strings in Code-128 compression mode (two digits being represented by one bar code symbol, rather than one digit per bar code symbol). Each bar code symbol consists of 11 bar code elements with the STOP character being 13. For example, a 30 digit data string would be represented by 15 bar code symbols (11 elements each), one START symbol (11 elements), one Cyclic Redundancy Check (CRC) symbol (11 elements) and one STOP symbol (13 elements). Thus, this string would be represented by a total of 200 bar code elements in a 3 inch wide scanning aperture, corresponding to a required 'X' dimension of 0.015 inches. If the Code-128 non-compression mode were used, twice as much linear print space (6 inches) would be required to print the same bar code. *Note: Odd length strings in the table below are assumed to be padded out to the next even character count for optimum Code-128 compression mode or incur the additional overhead of an extra mode change bar code symbol.*

Bar Code Data String Length	Required 'X' Dimension for a 3" scan aperture	UPC Bar Code Specification	Comments
30	0.01500	115.4%	
31	0.01422	109.4%	
32	0.01422	109.4%	
33	0.01351	104.0%	
34	0.01351	104.0%	
35	0.01288	99.0%	~100% of Standard UPC Bar Code Specification See Pages I-7 and I-8 of <u>Exhibit A</u>
36	0.01288	99.0%	
37	0.01230	94.6%	
38	0.01230	94.6%	
39	0.01176	90.5%	
40	0.01176	90.5%	
41	0.01128	86.8%	
42	0.01128	86.8%	
43	0.01083	83.3%	
44	0.01083	83.3%	
45	0.01042	80.1%	80% of Standard UPC Bar Code Specification
46	0.01042	80.1%	
47	0.01003	77.2%	
48	0.01003		
49	0.00968		
50	0.00968		
51	0.00935		
52	0.00935		
53	0.00904		
54	0.00904		
55	0.00875		
56	0.00875		
57	0.00847		
58	0.00847		
59	0.00822		
60	0.00822		
61	0.00798		
62	0.00798		
63	0.00775		
64	0.00775		
65	0.00754		Lower Bound Limit of CODE-128 Bar Code
66	0.00754		Lower Bound Limit of CODE-128 Bar Code
67	0.00733		Ultra-High Print Resolution
68	0.00733		Ultra-High Print Resolution
69	0.00714		Ultra-High Print Resolution
70	0.00714		Ultra-High Print Resolution
71	0.00696		Ultra-High Print Resolution
72	0.00696		Ultra-High Print Resolution
73	0.00679		Ultra-High Print Resolution
74	0.00679		Ultra-High Print Resolution
75	0.00662		Ultra-High Print Resolution
76	0.00662		Ultra-High Print Resolution
77	0.00647		Ultra-High Print Resolution
78	0.00647		Ultra-High Print Resolution
79	0.00632		Ultra-High Print Resolution
80	0.00632		Ultra-High Print Resolution

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

This dimension, bordering on what is commonly defined as Ultra-High Resolution (< 0.0075 inches), is well below the minimum printable standard required 'X' dimension specified for grocery store scanners – 0.0104 inches even at the 80% UPC symbol reduction size (see Exhibit A, at pages I-7 and I-8, Appendix C, and page g). If other fields, such as invoice number (paragraph 0015) or due date for invoice (Claim 7), were included in the biller printed bar code, this 'X' dimension would fall even further below the mandated 0.0104 inch threshold. Applewhite speculates on even more data fields that might be included in the bar code for a different purpose (paragraph 0020) where the “merchant retains a copy at least some of the information relating to the bar-coded bill 200. The merchant can use this retained information to update customer loyalty accounts.” If Applewhite had recognized the grocery store minimum printable 'X' dimension standards and the lowest common denominator hardware bar code scanning apertures, he would have realized that a maximum of approximately 46 data characters could be printed in a bar code string on his suggested bill / invoice design (see Table on previous page). Recognizing this 46 data character limitation would have clearly demonstrated the need for a more disciplined allocation strategy of a limited information resource for his range of suggested data fields in a bar code design.

In summary, Applewhite speculates and does not limit the information elements that may be present within his stated bill / invoice bar code design. In so doing, he fails to recognize that there are physical hardware constraints and technical industry compliance standards that must be adhered to if his “invention” is to work as described in his example retail / grocery store environment.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Applewhite Does Not Conform To Commonly Accepted Industry Procedural Operations

While Applewhite attempts to describe the several mechanisms that his “invention” uses to transfer funds from the retailer to the biller, all of them are incorrect and do not conform with accepted standard operating procedures commonly employed by the Federal Reserve ACH network and the general banking environment.

Applewhite cannot accurately describe the simple process of moving funds from the retailer to an invoicing party, as demonstrated in paragraph 0027: “Moreover, the management computer 315 could be responsible for arranging the transfer of money from the merchant’s financial institution either to itself for later distribution to the merchant or to the merchant directly.” One would not transfer money from a merchant source account to transfer it back later to the very same account. The term “merchant”, as used in the Applewhite specification, is the entity responsible for collecting customer payments. The author of this specification obviously meant something else. Without a workable funds remission process to the destination invoicing parties, the Applewhite “invention” can not work as presented. Customer payment data without corresponding payment funds is not a viable bill payment system. This is a critical error in a primary concept and design premise.

In paragraphs 0019 and 0027, Applewhite further indicates that either the EFT (electronic funds transfer) processor 135 or the management computer 315 can, as a third party, initiate a funds transfer between two other financial institutions directly. That is absolutely false. Within the Federal Reserve network, financial institutions are either Originators or Receivers. The Federal Reserve network was designed as a direct point-to-point financial

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

network for bank branches to exchange financial debits and credits with the Federal Reserve acting as a “traffic cop” and umbrella authority to moderate this information interchange process. Banks do not accept funds transfer instructions from third-party sources for injection into the network because the originators of that information are held directly accountable and financially responsible. If that information is incorrect or turns out to be fraudulent, then the Originator Bank is ultimately responsible to the Federal Reserve network for any and all financial restitution. Moreover, there is no allocated record field in any of the ACH directives that envisions or permits the storage of third-party originator traceback information, which would be absolutely required for a third-party submission mechanism. Thus, Applewhite describes an operational mode of his “invention” that directly contravenes all current standard banking practices. This is a second critical error in a primary concept and design premise.

It would also appear that Applewhite does not fully understand or appreciate the true function of a chain store retailer and its role of moving goods and services in the consumer marketplace. A chain store retailer’s expertise is buying a varied array of products or services from others in volume at the lowest cost and then reselling those items at convenient store locations to optimize profit with the least amount of overhead. If the chain store retailer encounters problems, however small, with any of his offered products or services, these products and services can be discontinued immediately, returned for credit, and/or replaced with others. In this very competitive environment, the chain store retailer’s Point-of-Sale (POS) application and equipment are extremely critical to the efficient management of retail sales and inventory management. In the grocery industry, profit margins range between 1-2% of gross sales, as a general rule-of-thumb. Thus, while operating within this small profit

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

margin, there is very little room for error, and even the smallest errors cannot be tolerated for long. Therefore, a chain store operator would be reluctant to install or to integrate a complicated and automated bill payment remission process that might adversely impact his core retail business process. A chain store operator might accommodate minor modifications to his POS system to accept bill payments as another form of bar-coded retail item. However, it is very unlikely that this operator would permit an automated third-party system process to have unchecked access to his bank account to remit collected customer bill payments to their respective billers, as stated in paragraph 0019: "The financial institution can be informed directly by the retailer – such as by the bar code system 125, or..." The Applewhite "invention", described in such stark terms, appears to be highly integrated with the retailer POS application in all its stated functionality and would require considerable management overhead / intervention to balance these transactions on a daily basis. Since the retailer POS system is now tasked with remitting collected customer payments, the retailer, and not a third-party processor such as an Applewhite "invention" licensee, is directly responsible for providing an absolute commitment of financial security and surety to the customer for the timely and correct delivery of his bill payment to the biller.

The Applewhite "invention", as an integrated system with the retailer POS application, also exponentially increases the grocery retailer's exposure to customer service-related issues, which are labor intensive and inherently expensive. For all the products and services that a grocery retailer offers to the public, there is generally a quick and easy remedy for any product complaint from customers. The customer simply returns the disputed product item with proof of purchase, and the retailer immediately refunds the customer his money. If the product is a

defective can of peas or other food item, the grocery retailer simply absorbs this minor rebate cost as a part of "normal business" spoilage. If the product is a piece of hardware, the retailer has the recourse of collecting his money back through the distributor chain or manufacturer of that product. In all these cases, defective product item disputes can be dispatched and satisfactorily resolved in a matter of minutes with a minimum of customer complaint and disturbance by assistant management store personnel. Bill payment disputes are another matter altogether, because late or missing payments affect customers' access to primary utility services – gas, electric, water, cable TV and telephone, to name just a few. Whenever primary utility service cutoffs are threatened because of late or non-payment, the affected customer almost always has a predisposition to be emotionally charged, loudly vocal and rude in their complaints to store management in full public view of other customers. Problems with bill payments can not be dispatched rapidly nor can they be satisfactorily resolved with a minimum of disruption. Since the grocery retailer is now directly responsible to the customer for remitting all bill payments with the Applewhite "invention", it takes personnel time to meticulously research the exact status of any given bill payment and to resolve any biller discrepancies, if at all possible, for subsequent explanation to the customer. In the case of habitually delinquent and/or partial bill payments, which is most frequently the case, the customer is generally not going to be satisfied with any outcome or result where the biller continues to demand full restitution plus additional surcharges for service reconnects or service continuation. Meanwhile during this extended wait, the disgruntled customer is emotionally stewing in full public view of other shopping customers. Each payment has to be very carefully researched and verified, because convoluted customer complications and customer-

HAYES SOLOWAY P.C.

130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

instigated fraud attempts are very common. Like checks, printed customer bill payment receipts can be easily counterfeited or modified. A customer, attempting to defraud the store, will noisily persist, again in full public view, until paid off in some manner by the store management to “just go away and never come back again.” This is a tactic that frequently occurs at restaurants by some customers who loudly falsify complaints of bad food just to get a free meal. In a grocery store environment, a single refunded fraudulent \$100 customer bill payment transaction can invalidate the profit margin of \$5,000 worth of groceries! (In contrast, Applicant teaches a third party method of bill payment that is compartmentalized, minimizes retailer financial and service exposure and that works in partnership with billers.) The Applewhite “invention” omits to consider the implications of the expensive states’ money transmitter licenses or states’ bonding requirements that each individual retailer is compelled to carry in order to participate in a business endeavor that deals with the custody of public funds. (Applicant’s invention mitigates these retailer requirements and assumes these responsibilities as an umbrella third party, with the biller registration process to secure recognition of the customer retail payment date and time as the creditor date and time of payment, acting as an agent of the biller.)

Like the recipe of what it takes to make a ham and scrambled eggs breakfast – the hen is involved, the pig is committed. In the same manner as the pig, the Applewhite “invention” requires an unacceptable level of retailer financial commitment and financial exposure (third-party automated access to a bank account for which the retailer is fiscally responsible), plus the potential software failure liabilities of an integrated third-party bill payment system that is inextricably linked to the retailer system-critical POS application. Applewhite clearly does not

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

understand the operating environment within which his “invention” is supposed to seamlessly operate.

In summary, it is apparent that Applewhite cannot construct a working model of his “invention” that adheres to and operates within the framework of industry standard procedures. Applewhite incorrectly describes a funds transfer process (paragraph 0027]. Applewhite describes a third-party initiated funds transfer process between two other independent parties that is neither possible nor acceptable within any current standard banking funds transfer process (paragraph 0019). And finally, Applewhite describes an automated funds remission process from a retailer’s account that is tantamount to an open cash drawer, highly vulnerable to common theft and simple fraud.

To conclude, the Applewhite “invention” demonstrates many of the same characteristics as other inventions cited against Applicant’s invention, i.e., all describe what appear to be similar elements and mechanisms, but all fail to bind them together into a single, simple and cohesive business strategy that works with currently available lowest common denominator technology. Applewhite presents a bill payment system concept whose bar coding design cannot be implemented within industry technical specifications and whose financial remittance process is basically flawed because it contravenes standard banking practices – in the same manner that Applicant’s simplistic and rudimentary rocket ship designs lacked a fundamental understanding of basic physics.

When a reference relied on expressly anticipates or makes obvious all of the elements of a claimed invention, the reference is presumed to be operable. MPEP §2121. Once such a

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

reference is found, the burden is on the applicant to provide facts rebutting the presumption of operability. *In re Sasse*, 629 F.2d 675, 207 USPQ 107 (CCPA 1980). Applicant respectfully submits that Applewhite does not provide an operable invention, as explained above.

Moreover, “[I]n determining that quantum of prior art disclosure which is necessary to declare an applicant's invention ‘not novel’ or ‘anticipated’ within §102, the stated test is whether a reference contains an ‘enabling disclosure.’” *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968). MPEP §2121.01 provides that “A reference contains an ‘enabling disclosure’ if the public was in possession of the claimed invention before the date of invention. ‘Such possession is effective if one of ordinary skill in the art could have combined the publication’s description of the invention with his [or her] own knowledge to make the claimed invention.’” *In re Donohue*, 766 F.2d 531, 226 USPQ 619 (Fed. Cir. 1985). The fact that Applewhite’s bill payment system can not transfer electronic funds in the manner described is a critical error in his “invention” concept and design premise. As explained above, Applewhite lacks sufficient details for one skilled in the art to arrive at Applicant’s invention, and since Applewhite is not grounded in reality, Applewhite cannot be an enabling reference. Since Applewhite does not provide an operable invention and is non-enabling, Applicant respectfully submits that all of the claim rejections based on Applewhite should be withdrawn, as will be discussed in further detail in the “Remarks” section, below.

In light of the foregoing introductory comments and claim amendments, Applicant respectfully provides the following remarks and arguments in support of the patentability of all of the pending claims:

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567